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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,994	11/02/2000	Avinash Jain	PA000106	3922

23696 7590 04/25/2003

Qualcomm Incorporated  
Patents Department  
5775 Morehouse Drive  
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EXAMINER

HARRY, ANDREW T

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 04/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/704,994

Applicant(s)

JAIN ET AL.

Examiner

Andrew T Harry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-27 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### **Claims 1, 19-20 are objected to by the Examiner**

#### *Claim Objections*

Claims 1, and 19-20 are objected to because of the following informalities: They all contain acronyms that were not previously defined in earlier claim language. Appropriate correction is required.

### **Claims 2, and 22-23 are rejected to by the Examiner**

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The use of "*protocols*" or "*standards*", protocols and standards change over time, hence, it is inappropriate to have the scope of a claim change with time. Since organizations implementing standards meet regularly and have the authority to modify standards, any connection a claim may have to these standards may vary over time. The other aspect arising from this is enablement. If the standard changes, the disclosure may no longer support the limitation. If the scope of the invention sought to be patented cannot be determined from the language of the claims, a second paragraph rejection is appropriate (*In re Wiggins*, 179 USPQ 421).

Claims 2 and 22-23, all contain standards that are not permitted in the claim language.

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**Claims 1, 3-5, 7-10, 12-21, and 24-27 are unpatentable over *Selby***

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-10, 12-21, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Selby* European Patent Publication 0260763** ("*Selby*").

As pertaining to **claim 1**, *Selby* teaches a method for registering with a plurality of registration zones in a wireless communications network (see *Selby*, abstract), the method comprising:

receiving an assignment for a first identity from a first network entity in response to registration with a first registration zone (see *Selby*, col. 7 lines 31-42);

registering with a second network entity in a second registration zone (see *Selby*, col. 8 lines 20-56); and

receiving an assignment for a second registration identity from the second network entity in response to registration with the second registration zone (see *Selby*, col. 8 lines 20-56).

*Selby* does not explicitly state that the system assigns a Temporary Mobile Subscriber Identity (TMSI) to the mobile when it would register in each different service region. However it is clear that *Selby* teaches a generic registration method that may have been implemented on various different cellular communications systems that were being used at the time. *Selby's* method could have easily been modified to operate on a system that required each mobile unit to

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receive a TMSI in order to be registered in a certain area served by a base station. Therefore the claimed invention is not novel over the method described by *Selby*.

As pertaining to **claim 3**, in *Selby*'s method each network entity corresponds to a base station in the communication network (see *Selby*, col. 8 lines 20-56).

As pertaining to **claim 4**, *Selby*'s communication method further comprises:

maintaining a first counter to provide an indication to initiate timer-based registration (see *Selby*, col. 15 lines 1-31); and

initiating timer-based registration if a value in the first counter exceeds a timer-based registration count value (see *Selby*, col. 15 lines 1-31).

As pertaining to **claim 5**, *Selby*'s communication method further comprises:

receiving a value representative of a maximum expiration period for timer-based registration (see *Selby*, col. 15 line 1-col. 21 line 45); and

setting the timer-based registration count value based on the received value (see *Selby*, col. 15 line 1-col. 21 line 45).

As pertaining to **claim 7**, in *Selby*'s method the registration with the second network entity is in response to entering the second registration zone (see *Selby*, col. 8 lines 20-56).

As pertaining to **claim 8**, in *Selby*'s method the registration with the second network entity is implicitly performed in response to establishing a connection with the second network entity (see *Selby*, col. 8 lines 20-56).

As pertaining to **claim 9**, in *Selby*'s method the first registration zone is entered first and the second registration zone is subsequently entered (see *Selby*, col. 8 lines 20-56), the method further comprising:

activating a first timer for the first registration zone upon registration with the second network entity (see *Selby*, col. 15 line 1-col. 21 line 45).

As pertaining to **claim 10**, *Selby*'s communication method further comprises:

updating a count value for the first timer at each update interval (see *Selby*, col. 13 line 1-col. 21 line 45); and

timing out registration with the first registration zone if a count value for the first timer exceeds a time-out value (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 12**, *Selby*'s communication method further comprises:

deactivating a second timer for the second registration zone upon registration with the second network entity (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 13**, *Selby*'s communication method further comprises:

maintaining a zone list having a plurality of entries, one entry for each registration zone in which TMSI has been assigned and with which registration is currently valid (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 14**, *Selby*'s communication method further comprises:

receiving a value indicative of a maximum number of registration zones with which registration is allowed; and

deleting one or more entries from the zone list such that the number of entries maintained in the zone list is equal to or less than the maximum number of allowable registration zones (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 15**, in *Selby*'s method the oldest entries in the zone are deleted first (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 16**, in *Selby's* method the oldest entries in the zone list are determined by associated timers activated for the entries (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 17**, in *Selby's* method each entry ion the zone list corresponds to an active registration zone, and wherein each entry includes:

- a zone number of the active registration zone,
- a zone code assigned for the active registration zone, and
- an entry timer for providing an indication used to time out registration with the active registration zone (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 18**, in *Selby's* method each entry in the zone list further includes:  
a time-out count indicative of a maximum timeout period for registration with the active registration zone, and

- wherein a timeout period for registration with the active registration zone, and
- wherein a timeout period for registration with the active registration zone is determined based in part on the timeout count (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 19**, in *Selby's* method registration is enabled while in a connected state indicative of an established RRC connection between a mobile station and a base station (see *Shelby*, col. 8 lines 19-56).

As pertaining to **claim 20**, in *Shelby's* method RR-level registration is enabled via a message from a network entity, and timer-based registration is enabled via a message from a network entity (see *Selby*, col. 8 lines 19-56).

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As pertaining to **claim 24**, *Selby* teaches a method for registering with a plurality of temporary radio zones in a wireless communication network, the method comprising:

registering with a first base station in a first temporary zone (see *Selby*, col. 7 lines 30-42);

receiving an assignment for a first temporary code from the first base station in response to registration with the first temporary zone (see *Selby*, col. 7 lines 30-42);

registering with a second base station in a second temporary zone (see *Selby*, col. 8 lines 18-56); and

receiving an assignment for a second temporary code from the second base station in response to registration with the second temporary zone (see *Selby*, col. 8 lines 18-56).

*Selby* does not explicitly state that the system assigns a Temporary Mobile Subscriber Identity (TMSI) to the mobile when it would register in each different service region. However it is clear that *Selby* teaches a generic registration method that may have been implemented on various different cellular communications systems that were being used at the time. *Selby's* method could have easily been modified to operate on a system that required each mobile unit to receive a TMSI in order to be registered in a certain area served by a base station. Therefore the claimed invention is not novel over the method described by *Selby*.

As pertaining to **claim 25**, in *Selby's* method the first registration zone is entered first and the second registration zone is subsequently entered (see *Selby*, col. 8 lines 18-56), the method further comprising:

activating a first timer fore the first temporary zone upon registration with the second base station; and



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deactivating a second timer for the second temporary zone upon registration with the second base station (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 26**, *Selby*'s method further comprises:

updating a count value for the first timer at each update interval; and

timing out registration with the first temporary zone if the count value for the first timer exceeds a time-out value (see *Selby*, col. 13 line 1-col. 21 line 45).

As pertaining to **claim 27**, *Selby* teaches a method for managing multiple temporary mobile station identities in a radio communications network, the method comprising:

assigning a first temporary identity to a mobile station via a first base station when the mobile station enters a first temporary zone (see *Selby*, col. 7 lines 30-42);

registering the mobile station with a second base station in a second temporary zone (see *Selby*, col. 8 lines 18-56); and

assigning a second temporary identity to the mobile station via the second base station so that the mobile station is registered in a plurality of temporary zones (see *Selby*, col. 8 lines 18-56).

*Selby* does not explicitly state that the system assigns a Temporary Mobile Subscriber Identity (TMSI) to the mobile when it would register in each different service region. However it is clear that *Selby* teaches a generic registration method that may have been implemented on various different cellular communications systems that were being used at the time. *Selby*'s method could have easily been modified to operate on a system that required each mobile unit to receive a TMSI in order to be registered in a certain area served by a base station. Therefore the claimed invention is not novel over the method described by *Selby*.

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**Claims 2, and 22-23 are unpatentable over *Selby***

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Selby*.

Claims 2, and 22-23 all describe a standard by which the system in the claimed invention may be implemented. It would have been obvious to one of ordinary skill in the art to have the knowledge that most all radiotelephone systems have the problem described in *Selby*, and furthermore it appears as though *Selby*'s teachings are presented in a way that may allow them to be implemented on almost any mobile radiophone system that includes base stations and cells. Therefore, it would have been obvious to use *Selby*'s disclosure to solve the problem presented in his specification. Radiophone systems with similar infrastructures and slight differences in signaling technique or nomenclature would not have made the implementation of *Selby*'s method significantly different.

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**Claim 11 is allowable over the prior art**

***Allowable Subject Matter***

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claims 1, 5 (again) and 6 are unpatentable over Selby**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 (again) and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Fehnel*** U.S. Patent 6,064,889 ("*Fehnel*").

As pertaining to **claim 1**, *Fehnel* teaches a method for registering with a plurality of registration zones in a wireless communications network (see *Fehnel*, abstract), the method comprising:

receiving an assignment for a first identity from a first network entity in response to registration with a first registration zone (see *Fehnel*, col. 12 lines 27-44);

registering with a second network entity in a second registration zone (see *Selby*, col. 8 lines 20-56); and

receiving an assignment for a second registration identity from the second network entity in response to registration with the second registration zone (see *Fehnel*, col. 12 line 61-col. 13 line 31).

*Fehnel* does not explicitly state that the system assigns a Temporary Mobile Subscriber Identity (TMSI) to the mobile when it would register in each different service region. However it is clear that *Fehnel* teaches a generic registration method that may have been implemented on various different cellular communications systems that were being used at the time. *Selby's* method could have easily been modified to operate on a system that required each mobile unit to receive a TMSI in order to be registered in a certain area served by a base station. Therefore the claimed invention is not novel over the method described by *Fehnel*.

As pertaining to **claim 5**, *Fehnel's* communication method further comprises:

receiving a value representative of a maximum expiration period for timer-based registration (see *Fehnel*, col. 12 lines 9-44); and

setting the timer-based registration count value based on the received value (see *Fehnel*, col. 12 lines 9-44).

As pertaining to **claim 6**, in *Fehnel's* communication method the timer-based registration count value is a pseudo random value in a range between zero and a maximum value related to the received value (see *Fehnel*, col. 13 lines 31-49).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

E. Pashtan et al. U.S. Patent 5,842,127 teaches a method for a mobile to register with one or more cell sites and method for paging the mobile.

F. Gaasvik et al. U.S. Patent 5,898,923 teaches a registration method in a cellular mobile radio system.

G. Bodin U.S. Patent 6,387,027 teaches a method and device in a mobile station for avoiding repeated registration.

H. Ko U.S. Patent 6,381,456 teaches a method for managing subscriber location information in mobile communications system.

I. Monrad et al. U.S. Patent 6,208,628 teaches a method for providing a unique temporary identification of a mobile station. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Harry whose telephone number is 703-305-4749. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

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April 21, 2003



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